

*In the Figures*

Please amend Figure 5A as shown in red on the attached Figure 5A. Please amend Figure 6 as shown in red on the attached Figure 6. Formal drawings of Figure 5A and Figure 6 are submitted in a separate paper herewith.

*In the Claims*

The following is a clean version of the entire set of pending claims. In accordance with 37 CFR § 1.121(c)(1)(ii), Attachment A provides marked up versions of the claims containing the newly introduced changes.

1. (As Filed) An apparatus for interfacing between a systems management system and a remote services system comprising:
  - a systems management application program interface;
  - a systems management integrator application program interface, the systems management integrator application program interface providing a normalization point where data from the systems management system is normalized to a remote services system standard; and
  - an integrator coupled between the systems management application program interface and the systems management integrator application program interface, the integrator collecting and detecting information from the systems management system.
2. (As Filed) The apparatus of claim 1 wherein the systems management integrator application program interface includes:
  - a forward calls component, the forward calls component providing forwards calls from the systems management system to the remote services system.
3. (As Filed) The apparatus of claim 2 wherein the systems management integrator application program interface includes:
  - a back-channel calls component, the back-channel calls component providing back-channel calls from the remote services system to the system management system.

4. (As Filed) The apparatus of claim 1 wherein the systems management integrator application program interface provides generic message interfaces as well as specific message interfaces, the specific message interfaces being provided to enable the remote services system to handle a message without having to inspect the contents of the message.

5. (As Filed) The apparatus of claim 4 wherein the specific message interfaces include an alarm message.

6. (As Filed) The apparatus of claim 4 wherein the specific message interfaces include an event message.

7. (As Filed) The apparatus of claim 4 wherein:  
the generic message interfaces includes data, the data including a class, and  
the integrator sets the class of the data.

8. (As Filed) The apparatus of claim 3 wherein the systems management integrator application program interface:  
provides support for declaring capabilities of a support instance at registration time via  
the forward channel, and  
provides support for a request of the capabilities of the support instance via the back-channel after registration time.

9. (As Filed) The apparatus of claim 1 wherein the systems management integrator application program interface provides an interface between the integrator and a remote services infrastructure.

10. (As Filed) The apparatus of claim 8 wherein the systems management integrator application program interface is coupled to a remote services proxy of the remote services infrastructure.

11. (As Filed) A systems management integrator application program interface for a

remote services system comprising:

- a forward calls component, the forward calls component providing forwards calls from a systems management system to the remote services system; and
- a back-channel calls component, the back-channel calls component providing back-channel calls from the remote services system to the system management system.

12. (As Filed) The systems management integrator application program interface of claim 11 wherein the systems management integrator application program interface provides generic message interfaces as well as specific message interfaces, the specific message interfaces being provided to enable the remote services system to handle a message without having to inspect the contents of the message.

13. (As Filed) The systems management integrator application program interface of claim 12 wherein the specific message interfaces include an alarm message.

14. (As Filed) The systems management integrator application program interface of claim 12 wherein the specific message interfaces include an event message.

15. (As Filed) The systems management integrator application program interface of claim 12 wherein  
the generic message interfaces includes data, the data including a class, and  
an integrator sets the class of the data.

16. (As Filed) The systems management integrator application program interface of claim 11 wherein the systems management integrator application program interface  
provides support for declaring capabilities of a support instance at registration time via  
the forward channel, and  
provides support for a request of the capabilities of the support instance via the back-channel after registration time.

17. (As Filed) The systems management integrator application program interface of claim 11 wherein the systems management integrator application program interface provides an

interface between a systems management platform and a remote services infrastructure.

18. (As Filed) The systems management integrator application program interface of claim 17 wherein the systems management integrator application program interface is coupled to a remote services proxy of the remote services infrastructure.

19. (As Filed) A method for interfacing between a systems management system and a remote services system comprising:

providing a systems management application program interface;  
collecting and detecting information from the systems management system using a systems management integrator, the systems management integrator interfacing with the systems management system via the systems management application program interface;  
providing and receiving information to the remote services system, the providing and receiving information being via a systems management integrator application program interface, the systems management integrator application program interface providing a normalization point where data from the systems management system is normalized to a remote services system standard.

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20. (New) A remote services proxy comprising:

a proxy foundation module, the proxy foundation module managing data normalization tasks;

a proxy integrator application program interface (API) module coupled to the proxy foundation module, the proxy API module providing a normalization point to the proxy foundation module;

a proxy identifier (ID) management module coupled to the proxy foundation module, the proxy ID management module managing allocation of unique identifiers for the remote services proxy and for any support instances registered through the remote services proxy; and

a proxy queuing module coupled to the proxy foundation module, the proxy queuing module queuing data for later transmission.

21. (New) The remote services proxy of claim 20 wherein the proxy foundation module and the proxy API module communicate using an Inter-Process Communication (IPC) implementation.
22. (New) The remote services proxy of claim 20 wherein the proxy integrator API module is implemented using one of a plurality of different programming languages to correspond to a systems management software language.
23. (New) The remote services proxy of claim 20 wherein the proxy queuing module includes a plurality of features for managing queuing of data.
24. (New) The remote services proxy of claim 23 wherein the plurality of features include a priority feature and a time for data to live feature.
25. (New) The remote services proxy of claim 20 wherein the proxy ID management module manages mapping between a systems management ID and a remote services ID.
26. (New) The remote services proxy of claim 20 wherein the remote services ID is keyed off a unique customer ID.
27. (New) A remote services proxy comprising a proxy daemon, the proxy daemon providing infrastructure management services; and, at least one communication mechanism coupled between the proxy daemon and an integrator application program interface (API).
28. (New) The remote services proxy of claim 27 wherein the communication mechanism is an Inter-Process Communication (IPC) communication mechanism.
29. (New) The remote services proxy of claim 27 wherein the infrastructure management services include at least one of software upload services, software update services

and proxy status services.

30. (New) The remote services proxy of claim 27 further comprising:  
a communications module coupled to the proxy daemon.

31. (New) The remote services proxy of claim 30 wherein the communications module includes a routing module.

32. (New) The remote services proxy of claim 30 wherein the communications module includes a queuing module.

33. (New) The remote services proxy of claim 30 wherein the communications module includes a communications/encryption module.

34. (New) A method for initializing a remote services proxy in a remote services system comprising

consulting a proxy configuration file to determine whether the remote services proxy has already registered with the remote services system;  
sending a registration message to the remote services system if the remote services proxy has not yet registered;  
awaiting a positive acknowledgement of registration before completing initialization and beginning full operation; and  
storing the positive acknowledgement in persistent data of the remote services proxy.

35. (New) The method for initializing a remote services proxy of claim 34 further comprising:

connecting an integrator to the remote services proxy via a remote services integrator application program interface (API); and,  
determining whether the integrator has previously registered with the remote services system.

36. (New) The method for initializing a remote services proxy of claim 35 wherein

the determining whether the integration has previously registered is based upon a remote services ID of the integrator.

37. (New) The method for initializing a remote services proxy of claim 35 further comprising:

allocating a remote services ID for the integrator by the remote services proxy when the integrator has not previously registered with the remote services system; and sending the remote services ID to the remote services system in a registration message.

38. (New) The method for initializing a remote services proxy of claim 37 further comprising

sending additional information to the remote services system in the registration message, the additional information including at least one of a module ID for the integrator and version information for the integrator.

41. 39. (New) The method for initializing a remote services proxy of claim 35 further comprising:

registering support instances being managed by the integrator.

40. (New) The method for initializing a remote services proxy of claim 39 wherein registering the support instances being managed by the integrator enables the remote services system to perform entitlement checking against the instance and the services being provided to a customer and enables the remote services system to send data to a particular support instance to provide a particular service action.

41. (New) A remote services proxy comprising:

a proxy foundation module, the proxy foundation module managing data normalization tasks; and

a proxy integrator application program interface (API) module coupled to the proxy foundation module, the proxy API module providing a normalization point to the proxy foundation module.

42. (New) The remote services proxy of claim 40 wherein the proxy ID management module manages mapping between a systems management ID and a remote services ID.

43. (New) The remote services proxy of claim 40 wherein the remote services ID is keyed off a unique customer ID.

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This submission adds new claims 20-43. In accordance with 37 CFR § 1.121(c)(1)(ii), Attachment A provides marked up versions of the claims containing the newly introduced changes.

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